
New Combinations Within the *Briza* Complex (Poaceae, Pooideae, Poeae)

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ABSTRACT. *Briza* L. (Poaceae, Pooideae, Poeae) is a genus with a controversial circumscription, being either considered sensu lato, including Eurasian and South American species (e.g., Longhi-Wagner, 1987), or sensu stricto, including only four Eurasian species and being considered closely related to the South American species, forming the *Briza* complex (Matthei, 1975). According to recent phylogenetic analysis, *Briza* should be accepted sensu stricto, with four Eurasian species, as proposed by Matthei (1975) and other authors. The American species, which were previously published under *Briza* s.l. or under the genera *Calotheca* Desv., *Chascolytrum* Desv., *Erianthecium* Parodi, *Gymnachne* Parodi, *Lombardochloa* Roseng. & B. R. Arrill., *Microbriza* Parodi ex Nicora & Rúgolo, *Poidium* Nees, and *Rhombolytrum* Link, should be included within *Chascolytrum*, the oldest generic name published for the American species of the complex. As a result, the following 13 new combinations are proposed in *Chascolytrum*: *C. ambiguum* (Hack.) Essi, Longhi-Wagner & Souza-Chies, *C. bidentatum* (Roseng., B. R. Arrill. & Izag.) Essi, Longhi-Wagner & Souza-Chies, *C. brachychaetum* (Ekman) Essi, Longhi-Wagner & Souza-Chies, *C. brasiliense* (Nees ex Steud.) Essi, Longhi-Wagner & Souza-Chies, *C. brizoides* (Lam.) Essi, Longhi-Wagner & Souza-Chies, *C. bulbosum* (Parodi) Essi, Longhi-Wagner & Souza-Chies, *C. calotheca* (Trin.) Essi, Longhi-Wagner & Souza-Chies, *C. itatiaiae* (Ekman) Essi, Longhi-Wagner & Souza-Chies, *C. koelerioides* (Trin.) Essi, Longhi-Wagner & Souza-Chies, *C. monandrum* (Hack.) Essi, Longhi-Wagner & Souza-Chies, *C. poomorphum* (J. Presl) Essi, Longhi-Wagner & Souza-Chies, *C. rhomboideum* (Link) Essi, Longhi-Wagner & Souza-Chies, and *C. uniolae* (Nees) Essi, Longhi-Wagner & Souza-Chies. The names *Poa koelerioides* Trin., *Poa tumidula* Steud.,

Poidium brasiliense Nees ex Steud., and *Rhombolytrum berterioanum* E. Desv. are lectotypified.

Key words: *Briza* complex, *Chascolytrum*, Eurasia, Gramineae, South America.

The genus *Briza* L. (Linnaeus, 1753; Poaceae, Pooideae, Poeae) was published with three European species, *B. maxima* L., *B. minor* L., and *B. media* L. Another Old World species, *B. humilis* M. Bieb., was added later, in 1808. Several new South American species were afterward described under *Briza* or under the genera *Chascolytrum* Desv., *Calotheca* Desv., *Poidium* Nees, *Lombardochloa* Roseng. & B. R. Arrill., and *Microbriza* Parodi ex Nicora & Rúgolo (Nicora & Rúgolo de Agrasar, 1981). Further taxonomic treatments (e.g., Ekman, 1913; Parodi, 1920; Rosengurt et al., 1968, 1970; Longhi-Wagner, 1987) accepted a broad circumscription for *Briza*, some including sections or subgenera for *Briza* to accommodate such great morphological variability.

Matthei (1975) published a revision of *Briza* and related genera, jointly referred as the *Briza* complex, using morphological, anatomical, and cytological data. This author accepted *Briza* s. str., restricted to the Eurasian species, and distributed the American species among the genera *Calotheca*, *Chascolytrum*, and *Poidium*, a move that was followed by other authors (Smith et al., 1981; Soreng et al., 2003).

Nicora and Rúgolo de Agrasar (1981) described the genus *Microbriza* for two species previously accepted under *Briza* or *Poidium*: *M. brachychaete* (Ekman) Parodi ex Nicora & Rúgolo and *M. poomorpha* (J. Presl) Parodi ex Nicora & Rúgolo [as “*poaemorpha*”]. Additionally, Nicora and Rúgolo de Agrasar (1981) accepted *Briza* with a different circumscription from that proposed by Matthei (1975), including not only the Eurasian species, as in Matthei (1975), but also the American species previously described under the genus *Chascolytrum*

and a portion of the species described in *Poidium*. Nicora and Rúgolo de Agrasar (1981) accepted the genera *Calotheca*, *Poidium*, and *Rhombolytrum* Link for the remaining species of this complex.

Bayón (1998) published a cladistic analysis of the *Briza* complex based on 32 morphological characters, resulting in the acceptance of the genera proposed by Nicora and Rúgolo de Agrasar (1981), with similar circumscription. Recently, Essi et al. (2008) performed a phylogenetic analysis of the *Briza* complex based on molecular data that included three other related genera, *Erianthecium* Parodi, *Rhombolytrum*, and *Gymnachne* Parodi. This study resulted in the acceptance of *Briza* s. str. with four Eurasian species, and in the proposal of a new circumscription for the genus *Chascolytrum*, including all the accepted South American species previously assigned to the other genera cited above. The necessary new combinations resulting from this new circumscription are proposed in the present work.

MATERIALS AND METHODS

This work was based on field collections, traditional revision of herbaria, and review of literature. Field collections covered the southernmost Brazilian states. The following herbaria were consulted: B, BLA, BM, Centro Nacional de Pesquisa em Ovinos, CONC, CORD, FLOR, G, GUA, HAS, HB, HBR, ICN, K, L, LINN, LPB, M, MBM, MO, MSB, NY, P, PACA, RB, S, SGO, SMDB, UEC, VIC, and W. Electronic images provided by BAA, GOET, PR, and US were also examined.

NEW COMBINATIONS

Chascolytrum Desv., *Nouv. Bull. Sci. Soc. Philom.* Paris 2: 190. 1810. *Briza* sect. *Chascolytrum* (Desv.) Benth. & Hook., *Gen. Pl.* 3(2): 1195. 1883. *Briza* subg. *Chascolytrum* (Desv.) Parodi, *Revista Fac. Agron. Veterin. (Buenos Aires)* 3: 120. 1920. TYPE: *Chascolytrum subaristatum* (Lam.) Desv.

Calotheca Desv., *Nouv. Bull. Sci. Soc. Philom.* Paris 2: 190. 1810, nom. orth. cons., non *Calosteca* Desv. *Briza* sect. *Calotheca* (Desv.) Benth. & Hook., *Gen. Pl.* 3(2): 1195. 1883. *Briza* subg. *Calotheca* (Desv.) Parodi, *Revista Fac. Agron. Veterin. (Buenos Aires)* 3: 130. 1920, syn. nov. TYPE: *Calotheca brizoides* (Lam.) Desv.

Rhombolytrum Link, *Hort. Berol.* 2: 296. 1833, syn. nov. TYPE: *Rhombolytrum rhomboideum* Link.

Poidium Nees, *Intr. Nat. Syst. Bot.* 450. 1836. *Briza* sect. *Poidium* (Nees) Ekman, *Ark. Bot.* 13(10): 70. 1913. *Briza* subg. *Poidium* (Nees) Parodi, *Revista Fac.*

Agron. Veterin. (Buenos Aires) 3: 133. 1920, syn. nov. TYPE: *Poidium brasiliense* Nees ex Steud.

Chondrachyrum Nees, *Nat. Syst. Bot.* 449. 1836. *Melica* subsect. *Chondrachyrum* (Nees) W. Hempel, *Feddes Rept.* 84(7–8): 541. 1973. TYPE: *Chondrachyrum scabrum* Nees ex Steud.

Gymnachne Parodi, *Notas Mus. La Plata, Bot.* 3: 29. 1938, syn. nov. TYPE: *Gymnachne jaffuelii* Parodi.

Erianthecium Parodi, *Notas Mus. La Plata, Bot.* 8: 75, f. 1. 1943, syn. nov. TYPE: *Erianthecium bulbosum* Parodi.

Lombardochloa Roseng. & B. R. Arrill., *Anales Fac. Quimica Montevideo* 9: 260. 1979. *Briza* sect. *Lombardochloa* (Roseng. & B. R. Arrill.) Longhi-Wagner, *Bol. Inst. Bioci. Univ. Fed. Rio Grande do Sul* 41: 22. 1987, syn. nov. TYPE: *Lombardochloa rufa* (J. Presl) Roseng. & B. R. Arrill.

Microbriza Parodi ex Nicora & Rúgolo, *Darwiniana* 23(1): 292. 1981, syn. nov. TYPE: *Microbriza poimorpha* (J. Presl) Parodi ex Nicora & Rúgolo.

1. *Chascolytrum ambiguum* (Hack.) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Briza ambigua* Hack., *Oesterr. Bot. Z.* 52(8): 308. 1902. *Poidium ambiguum* (Hack.) Matthei, *Willdenowia* 8: 121. 1975. TYPE: Brazil. “Brasilia, in provincia Rio de Janeiro,” 1889, A. F. M. Glaziou 17956 (holotype, W-17140; isotypes, BAA-361 [B fragm.] not seen, CP not seen, G, K, LE not seen, MO, US-865537 [W fragm., image seen]).

2. *Chascolytrum bidentatum* (Roseng., B. R. Arrill. & Izag.) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Briza bidentata* Roseng., B. R. Arrill. & Izag., *Bol. Fac. Agron. Univ. Montevideo* 105: 24. 1968. Replaced name: *Eragrostis monandra* Hack., *Repert. Spec. Nov. Regni Veg.* 7: 320. 1909. Blocking name: *Briza monandra* (Hack.) Pilg., *Notizbl. Bot. Gart. Berlin-Dahlem* 10(97): 725. 1929. *Rhombolytrum monandrum* (Hack.) Nicora & Rúgolo, *Darwiniana* 23: 302. 1981. TYPE: Brazil. Rio Grande do Sul: “Rio Pardo, prope Fazenda Soledade,” 70 m, Dec. 1905, C. Jürgens s.n. (holotype, W; isotypes, BAA not seen, US-90610 not seen).

3. *Chascolytrum brachychaetum* (Ekman) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Briza brachychaete* Ekman, *Ark. Bot.* 13(10): 60. 1913. *Poidium brachychaetum* (Ekman) Matthei, *Willdenowia* 8: 107. 1975. *Microbriza brachychaete* (Ekman) Parodi ex Nicora & Rúgolo, *Darwiniana* 23(1): 296. 1981. TYPE: Brazil. [Paraná:] “altoplanitie, Curytiba, in campo,” 15 Feb. 1911, P. K. Dusén 13390 (holotype, S; isotypes, BAA-367

[B fragm.] not seen, BM, K, L, US-601229 [S fragm., image seen], US-865538 [S fragm., image seen], W-39083 not seen).

4. **Chascolytrum brasiliense** (Nees ex Steud.) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Poidium brasiliense* Nees ex Steud., Syn. Pl. Glumac. 1(3): 288. 1854. *Briza brasiliensis* (Nees ex Steud.) Ekman, Ark. Bot. 13(10): 57. 1913. *Poa poidium* Döll, Fl. Bras. 2(3): 119. 1878. TYPE: Brazil. "civit. Paraná, in parte septentrionali civitatis," s.d., *F. Sellow 4848* (lectotype, designated here, BAA [image seen]; duplicate, US-98434 [image seen]).

Notes. According to Matthei (1975), the holotype of *Poidium brasiliense* Nees ex Steud. (*Sellow 4848* at B herbarium) was destroyed; therefore, he proposed a neotype, *Glaziou 6774* (P). However, this specimen belongs to *Briza itatiaiae* Ekman, which Matthei (1975) placed in synonymy. In the present study *B. itatiaiae* is accepted as *Chascolytrum itatiaiae* (Ekman) Essi, Longhi-Wagner & Souza-Chies. Nicora and Rúgolo de Agrasar (1981) had already noticed this problem and indicated there was a fragment of the holotype of *P. brasiliense* Nees ex Steud. at the herbarium BAA. This material was analyzed and confirmed as belonging to the original type collection of *P. brasiliense* Nees ex Steud. Another fragment of *Sellow 4848* was found at US. The neotype proposed by Matthei (1975: 112) cannot be accepted, and furthermore it belongs to *B. itatiaiae* according to the circumscription accepted here. The specimen *Sellow 4848* (BAA) is now proposed as a lectotype. The fragment from BAA was chosen for lectotypification because it is the material discussed in detail (including leaf anatomy) by Nicora and Rúgolo de Agrasar (1981).

5. **Chascolytrum brizoides** (Lam.) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Bromus brizoides* Lam., Tabl. Encycl. 1: 193. 1791. *Calotheca brizoides* (Lam.) Desv., Nouv. Bull. Sci. Soc. Philom. Paris 2: 190. 1810. *Briza brizoides* (Lam.) Kuntze, Revis. Gen. Pl. 3(3): 341. 1898. TYPE: Uruguay. "E. Monte-Video," *P. Commerson s.n.* (holotype, P).

Briza patula Phil., Anales Univ. Chile 94: 163. 1896. TYPE: Chile. supra Angol, Nov. 1887 (holotype, SGO-62648 not seen).

Briza tandilensis Parodi, Revista Fac. Agron. Veterin. (Buenos Aires) 3: 132. 1920. TYPE: Argentina. Buenos Aires: cerros del Tandil, Nov. 1919, *L. R. Parodi s.n.* (holotype, BAA [image seen]; isotype, US-1108548 [BAA fragm.]).

6. **Chascolytrum bulbosum** (Parodi) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Erianthecium bulbosum* Parodi, Notas Mus. La Plata, Bot. 8: 77, fig. 1. 1943. TYPE: Uruguay. Minas: cerro Arequita, frecuente en pedregal arbustivo y pratense, 15 Oct. 1939, *B. Rosengurtt 3154* (holotype, BAA [image seen]).

7. **Chascolytrum calotheca** (Trin.) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Eragrostis calotheca* Trin., Mem. Acad. Imp. Sci. St. Pétersbourg, Sér. 6, Sci. Math. 1(4): 414. 1830. *Poa calotheca* (Trin.) Kunth, Enum. Pl. 1: 340. 1833. *Briza calotheca* (Trin.) Hack., Bull. Herb. Boissier, sér. 2, 4(3): 282. 1904. *Poidium calotheca* (Trin.) Matthei, Willdenowia 8: 116. 1975. TYPE: [Brazil. São Paulo:] "V. spp. Bras. Sto. Paulo, in fruticeis humidis prope Jundiáhy," Oct. 1825, *Riedel s.n.* (holotype, LE-TRIN-2315 not seen; isotypes, LE not seen, US-2891459 [image seen]).

Briza poa Nees ex Steud., Syn. Pl. Glumac. 1: 283. 1854. TYPE: Brasilia, *F. Sellow s.n.* (lectotype, designated by Matthei [1975: 116], CGE not seen; duplicates, BAA-391 [B fragm.] not seen, LE-TRIN-2552 not seen).

Briza neesii Döll, Fl. Bras. 2(3): 132. 1878. nom. illeg. superfl.

Briza neesii Döll var. *flaccida* Döll, Fl. Bras. 2(3): 133. 1878. TYPE: Brazil. *Anonymous s.n.* [Academiae Petropolitanae specimen] (holotype, LE not seen).

8. **Chascolytrum itatiaiae** (Ekman) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Briza itatiaiae* Ekman, Ark. Bot. 13(10): 58, t. 4, fig. 1. 1913. *Poidium itatiaiae* (Ekman) Nicora & Rúgolo, Darwiniana 23(2): 306. 1981. TYPE: Brazil. [Minas Gerais:] "Serra do Itatiaia, in monticulo Serra da Pedra Assentada," 2400 m, 19 May 1902, *P. K. Dusén 292* (lectotype, designated by Matthei [1975: 112], S; duplicates, R not seen, US not seen).

9. **Chascolytrum koelerioides** (Trin.) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Poa koelerioides* Trin., Mem. Acad. Imp. Sci. St. Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 4, 2(1): 62. 1836. *Gymnachne koelerioides* (Trin.) Parodi, Revista Argent. Agron. 29(1-2): 19. 1962 [1963]. TYPE: Chile. Quillota: "in pascuis sylvaticis collium editiorum," Oct. 1829, *C. G. Bertero 947* (lectotype, designated here, P; duplicates, LE not seen, US-88773 [P fragm., image seen]).

Poa tenuiculmis Steud., Syn. Pl. Glumac. 1: 259. 1854, nom. illeg. superfl.

Rhombolytrum berterioanum E. Desv., Fl. Chil. 6: 387. 1854. TYPE: Chile: Los Llanos, provincia de Valdivia, [C.] Gay [Mouret] 298 (lectotype, designated here, P; duplicates, K, US-90608 [image seen]).

Gymnachne jaffuelii Parodi, Notas Mus. La Plata, Bot. 3(17): 30. 1938. TYPE: Chile. Concepción: F. Jaffuel 1884 (holotype, BAA not seen).

Notes. Two syntypes were cited in the protologue of *Poa koelerioides* Trin., one collected by C. G. Bertero (C. G. Bertero 947) and another attributed to Prescott (Prescott 1832). The latter specimen is considered by Soreng et al. (2003) as being from the same collection C. G. Bertero 947. The collection C. G. Bertero 947 is also included in the protologue of *Rhombolytrum berterioanum* E. Desv. as one of the two syntypes (the other specimen is the collection Gay 298, P, duplicates K, US-90608 [image seen]). The specimen seen at P (Bertero 947) is well conserved and matches with the original description of *P. koelerioides* Trin. It also matches with its synonym *R. berterioanum* E. Desv., but for this last species the collection Gay 298 was preferred in order to avoid using the same lectotype for two different names.

10. *Chascolytrum monandrum* (Hack.) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Poa monandra* Hack., Oesterr. Bot. Z. 52(10): 376–377. 1902. *Briza monandra* (Hack.) Pilg., Notizbl. Bot. Gart. Berlin-Dahlem 10(97): 725. 1929. *Poidium monandrum* (Hack.) Matthei, Willdenowia 8: 103. 1975. TYPE: prope Cutervo, May 1879, C. von Jelski 402 (holotype, W-41656; isotypes, US-88757 [W fragm., image seen], W-14194).

Calotheca stricta Hook. & Arn. var. *mandoniana* Griseb., Abh. Königl. Ges. Wiss. Göttingen 24: 289. 1879. *Briza mandoniana* (Griseb.) Henrard, Meded. Rijks-Herb. 40: 70. 1921. TYPE: Bolivia. G. Mandon [1356] (holotype, GOET; isotypes, G, GH not seen, L not seen, LE not seen, P, S not seen, W).

Briza lilloi Parodi, Revista Fac. Agron. Veterin. (Buenos Aires) 3: 133, f. 7(1). 1920. TYPE: Argentina. Tucuruan, La Cienaga, 1905, M. Lillo 4094 (holotype, BAA not seen).

Briza mandoniana (Griseb.) Henrard var. *herzogiana* Henrard, Meded. Rijks-Herb. 40: 71. 1921. TYPE: “Auf Alpenwiesen bei Choquetanga grande,” Oct. 1911, T. Herzog 3017 (holotype, L; isotype, L).

Briza mandoniana (Griseb.) Henrard var. *tuberculata* Henrard, Meded. Rijks-Herb. 40: 71. 1921. TYPE: “In vicinis Sorata, cerro del Iminapi in humo pingui,” Jan.–Mar. 1860, G. Mandon 1355 (holotype, L; isotypes, BM, G, K, NY, P, S, US-865545 not seen, W).

Briza mandoniana (Griseb.) Henrard var. *vallegrandensis* Henrard, Meded. Rijks-Herb. 40: 71. 1921. TYPE: “In subalpinen Gebüsch des Berges über Vallegrande,” Mar. 1911, T. Herzog 1879 (holotype, L; isotypes, L, S, US-865546 not seen).

11. *Chascolytrum poomorphum* (J. Presl) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Panicum poomorphum* J. Presl, in C. Presl, Reliq. Haenk. 1(4–5): 310. 1830, as “*poaemorphum*.” *Briza poomorpha* (J. Presl) Henrard, Meded. Rijks-Herb. 40: 73. 1921, as “*poaomorpha*.” *Poidium poomorphum* (J. Presl) Matthei, Willdenowia 8: 108. 1975, as “*poaemorphum*.” *Microbriza poomorpha* (J. Presl) Parodi ex Nicora & Rúgolo, Darwiniana 23(1): 295. 1981, as “*poaomorpha*.” TYPE: Peru. “Hab. in montanis Peruviae huanoccensibus,” s.d., T. Haenke s.n. (holotype, PR [image seen]; isotypes, B not seen, BAA not seen, US-975970 not seen).

Isachne hackelii Lindm., Kongl. Svenska Vetenskapsakad. Handl., n.s. 34(6): 11, t. 5. 1900. *Briza hackelii* (Lindm.) Ekman, Ark. Bot. 13(10): 61. 1913. TYPE: Bras. Civ. Rio Grande do Sul: Porto Alegre, Parthenon, C. A. M. Lindman [Exp. I. Regn.] A595 (holotype, W not seen; isotype, US-702321 not seen).

Briza hackelii f. *pseudisachne* Ekman, Ark. Bot. 13(10): 61. 1913. TYPE: Bras. Civ. Rio Grande do Sul: Rio Grande do Sul oppidum in campo arenoso loco subumido, 7 Nov. 1901, G. Malme [Exp. Regn.] 250 (holotype, S).

12. *Chascolytrum rhomboideum* (Link) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Rhombolytrum rhomboideum* Link, Hort. Berol. 2: 296. 1833, as “*Rhomboelytrum*.” TYPE: Chile. “Habitat in Chile, e seminibus ideallitis enata,” Anonymous s.n. (holotype, B not seen; isotypes, BAA-2759 [B fragm.] not seen, P, US-946981b not seen).

Poa tumidula Steud., Syn. Pl. Glumac. 1: 258. 1854. TYPE: Chile. Cachapuel Rancagua, Bertero 277 (lectotype, designated here, P; duplicate, US-90609 [image seen]).

Rhombolytrum quinquenervium Phil., Linnaea 33(3–4): 293. 1864. TYPE: “Prope ‘los Molles’ in prov. Aconcagua,” R. A. Philippi s.n. (holotype, SGO not seen; isotypes, P not seen, US not seen).

13. *Chascolytrum uniolae* (Nees) Essi, Longhi-Wagner & Souza-Chies, comb. nov. Basionym: *Eragrostis uniolae* Nees, Fl. Bras. Enum. Pl. 2(1): 494. 1829. *Briza uniolae* (Nees) Nees ex Steud., Syn. Pl. Glumac. 1: 283. 1854. *Poidium uniolae* (Nees) Matthei, Willdenowia 8: 93. 1975. TYPE: [Brazil or Paraguay.] “Habitat in confinibus regni Paraguayanis,” F. Sellow s.n. (holotype, B not seen; isotypes, BAA-405 [B. fragm., image seen], LE-TRIN-2405.01 not seen).

Chascolytrum spicigerum J. Presl, Reliq. Haenk. 1(4–5): 282. 1830. *Briza spicigera* (J. Presl) Steud., Nomencl.

Bot. (ed. 2) 1: 225. 1840. TYPE: "Hab. in Peruviae montanis et in Chile," *T. Haenke s.n.* (holotype, PR not seen; isotypes, M not seen, MO, US [fragm.] not seen, W).

Briza uniolae (Nees) Nees ex Steud. var. *modestior* Döll, Fl. Bras. 2(3): 131. 1878. TYPE: "In insula S. Catharinae," *F. Müller s.n.* (holotype, B; isotype, US [fragm.] not seen).

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Literature Cited

- Bayón, N. D. 1998. Cladistic analysis of the *Briza* complex (Poaceae, Poeae). *Cladistics* 14: 287–296.
- Ekman, E. L. 1913. Die Gräser des brasilianischen Staates Paraná. *Ark. Bot.* 13(10): 1–83.
- Essi, L., H. M. Longhi-Wagner & T. T. Souza-Chies. 2008. Phylogenetic analysis of the *Briza* complex (Poaceae). *Molec. Phylogen. Evol.* 47(3): 1018–1029.
- Linnaeus, C. 1753. *Briza* L. Pp. 70–71 in *Species Plantarum*, Vol. 1. Stockholm.
- Longhi-Wagner, H. M. 1987. *Briza* L. in *Flora Ilustrada do Rio Grande do Sul*, Fasc. 17. Gramineae, tribo Poeae. *Bol. Inst. Bioc. Univ. Fed. Rio Grande do Sul* 41: 18–68.
- Matthei, O. 1975. Der Briza-Komplex in Südamerika: *Briza*, *Calotheca*, *Chascolytrum*, *Poidium* (Gramineae). *Willdenowia* 8: 7–168.
- Nicora, E. G. & Z. E. Rúgolo de Agrasar. 1981. Los géneros sudamericanos afines a *Briza* L. (Gramineae). *Darwiniana* 23(1): 279–309.
- Parodi, L. R. 1920. Notas sobre las especies de *Briza* de la Flora Argentina. *Revista Fac. Agron. Veterin.* 3: 113–137.
- Rosengurtt, B., B. R. Arrillaga de Maffei & P. Izaguirre de Artucio. 1968. Sinopsis de *Briza* (Gramineae) del Uruguay y notas taxonómicas sobre otras especies de este género. *Bol. Fac. Agron. Univ. Montevideo* 105: 1–35.
- Rosengurtt, B., B. Arrillaga de Maffei & P. Izaguirre de Artucio. 1970. Gramíneas Uruguaias. Departamento de Publicaciones, Universidad de la Republica, Montevideo.
- Smith, L. B., D. C. Wasshausen & R. M. Klein. 1981. Gramíneas, I parte. Pp. 230–256 in R. Reitz (editor), *Flora Ilustrada Catarinense*. Herbário Barbosa Rodrigues, Itajaí.
- Soreng, R. J., P. M. Peterson, G. Davidse, E. J. Judziewicz, F. O. Zuloaga, T. S. Filgueiras & O. Morrone. 2003. Catalogue of New World grasses (Poaceae): IV. Subfamily Pooideae. *Contr. U.S. Natl. Herb.* 48: 1–730.